

Attorney Docket No. 200311972-1; Ser. No. 10/801,341

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1 - 2. (Canceled)

3. (Previously presented) The method of claim 55, wherein said at least a portion removed comprises material that is substantially unmodified in its material properties.

4. (Canceled)

5. (Currently amended) The method of claim 4 55, wherein the layer of material is formed by one or more said deposition processes comprise comprising one or more of: spin coating, spraying, dipping, spreading, or combinations thereof.

6. (Canceled)

7. (Previously presented) The method of claim 55, wherein said selective modifying further comprises:

performing one or more laser annealing processes on said at least one portion of the formed material layer.

8. (Original) The method of claim 7, wherein at least one of said laser annealing processes comprises localized annealing using a pulsed excimer laser.

9. (Previously presented) The method of claim 7, wherein the formed material layer is selectively annealed, the selection being based at least in part on its position on said substrate.

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10. (Previously presented) The method of claim 55, wherein said material properties comprise one or more of: conductivity, consolidation, or crystallinity.

11. (Canceled)

12. (Previously presented) The method of claim 56, and further comprising a step for removing at least a substantially unmodified portion of the formed layer of material.

13. (Canceled)

14. (Currently amended) The method of claim 13 56, wherein the layer of material is formed by said one or more deposition processes comprise comprising one or more of: spin coating, spraying, dipping, spreading, or combinations thereof.

15. (Canceled)

16. (Previously presented) The method of claim 56, wherein said step for selectively modifying further comprises:

a step for performing one or more laser annealing processes on said at least one portion of the formed material layer.

17. (Original) The method of claim 16, wherein at least one of said laser annealing processes comprises localized annealing with a pulsed excimer laser.

18. (Previously presented) The method of claim 16, wherein the formed material layer is selectively annealed based at least in part on its position on said substrate.

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19. (Previously presented) The method of claim 56, wherein said material properties comprise at least one of: conductivity, consolidation, and crystallinity.

20. (Previously presented) The method of claim 56, wherein said thin film comprises one or more thin films.

21 - 23. (Canceled)

24. (Previously presented) The transparent thin film electronic device of claim 57, wherein said removing at least said second portion comprises removing material that is substantially unmodified in material properties.

25. (Canceled)

26. (Currently amended) The transparent thin film electronic device of claim 25 57, wherein said one or more material layers are formed by said one or more deposition processes comprise comprising one or more of: spin coating, spraying, dipping, spreading, or combinations thereof.

27. (Canceled)

28. (Previously presented) The transparent thin film electronic device of claim 57, wherein said selective modifying further comprises:
a process substantially comprising one or more laser annealing processes applied to said at least a portion of said one or more material layers.

29. (Previously presented) The transparent thin film electronic device of claim 28, wherein at least one of said one or more laser annealing processes comprises localized annealing using a pulsed excimer laser.

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30. (Previously presented) The transparent thin film electronic device of claim 28, wherein said at least a portion of said one or more material layers is selected based at least in part on its position on said substrate.

31. (Previously presented) The transparent thin film electronic device of claim 57, wherein said selective modifying comprises selective modification of material properties comprising at least one of: conductivity, consolidation, and crystallinity.

32 - 52. (Canceled)

53. (Previously presented) The method of claim 55, wherein the selective modifying of one or more material properties comprises laser annealing of at least the first portion of the formed layer of material.

54. (Previously presented) The method of claim 55, wherein the second portion comprises at least a substantially unmodified portion of the formed layer of material.

55. (Previously presented) A method comprising:

a) forming a layer of sol-gel material on at least a portion of at least one surface of a substrate, the layer of sol-gel material being a precursor of a conductive material;

b) selectively modifying one or more material properties of at least a first portion of the formed layer of sol-gel material by selectively directing laser radiation on the first portion; and

c) selectively removing at least a second portion of the formed layer of material.

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56. (Previously presented) A method of forming a thin film, comprising:
a step for forming a layer of sol-gel material on at least a portion of at
least one surface of a substrate, the layer of sol-gel material being a precursor
of a conductive material, and
a step for selectively modifying one or more material properties of at
least one portion of the formed layer of sol-gel material.

57. (Previously presented) A transparent thin film electronic device, formed
substantially by a process comprising:
forming one or more material layers on a substrate, at least one of the
material layers being a sol-gel precursor of a conductive material;
selectively modifying at least a first portion of the sol-gel precursor of a
conductive material; and
removing at least a second portion of the one or more material layers,
wherein the at least a second portion comprises one or more non-annealed
portions of said one or more material layers.

58. (Previously presented) The method of claim 55 further comprising
irradiating the first portion and a third portion of the layer differently.

59. (Previously presented) The method of claim 58, wherein the first
portion overlies the third portion.

60. (Previously presented) the method of claim 58, wherein the third
portion is on a side of the first portion.

61. (Previously presented) The method of claim 60, wherein the third
portion is coplanar with the first portion.

62. (Previously presented) The method of claim 58, wherein the first
portion is irradiated with a first value and wherein the third portion is irradiated
with a second different value for at least one of laser application properties

selected from a group of properties consisting of: wavelength, frequency, fluence, focal point, and duration.

63. (Previously presented) The method of claim 58, wherein the first portion and the third portion are differently irradiated such that the first portion and the third portion have at least one different characteristic.

64. (Previously presented) The method of claim 63, wherein the at least one different characteristic is selected from a group of characteristics consisting of: conductivity, density, optical properties, and crystallinity.

65. (Previously presented) The method of claim 55, wherein the second portion underlies or overlies the first portion.

66. (Previously presented) The method of claim 55 further comprising irradiating the first portion of the layer with the laser having a first focal point or a first wavelength and irradiating a third portion of the layer with the laser having a second focal point or a second wavelength.

67. (Currently amended) A method of forming a thin film comprising:
forming a layer of material on at least a portion of at least one surface of a substrate, the layer comprising a sol-gel material, the sol-gel material being a precursor of a conductive material;
irradiating a first portion of the layer with a first amount of energy with at least one laser; and
irradiating a second portion of the layer with a second amount of energy with the at least one laser.

68. (Canceled)

69. (Previously presented) The method of claim 67, wherein the second portion underlies or overlies the first portion.

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70. (Previously presented) The method of claim 67, wherein the second portion is on a side of the first portion.
71. (Previously presented) The method of claim 67, wherein the first portion is irradiated with a laser having a first focal point or a first wavelength and wherein the second portion is irradiated with a laser having a second focal point or a second wavelength.
72. (Previously presented) The method of claim 67 further comprising removing a third portion of the layer which has not been substantially irradiated.
73. (Previously presented) The method of claim 67 wherein the first portion and the second portion are differently irradiated such that the first portion and the second portion have at least one different characteristic.
74. (Previously presented) The method of claim 73, wherein the at least one different characteristic is selected from a group of characteristics consisting of: conductivity, density, optical properties and crystallinity.
75. (Currently amended) The method of claim 73 wherein the sol-gel material comprises a precursor of indium tin oxide (ITO).

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76. (Currently amended) A method of forming a thin film comprising:
forming a layer of material on at least a portion of at least one surface
of a substrate, the layer of material being a precursor of a conductive material;
irradiating a first portion of the layer with at least one laser having a first
focal point or first wavelength; and
irradiating a second portion of the layer with the at least one laser
having a second focal point or a second wavelength.